

Information Science & Technology Institute – Rapid Response: D-Wave Effort Debrief

Agenda

**Los Alamos National Laboratory
MSL Auditorium**

**Thursday, April 27, 2017
1 pm – 5 pm**

1:00 **Welcome, Logistics**

Stephan Eidenbenz (ISTI)

1:10 **Leveraging LANL's D-WAVE 2X for Random Number Generation**Sarah Michalak

1:25 **The Cost of Embedding**Nathan Lemons

1:40 **Beyond Pairwise Ising Models in D-Wave: Searching for Hidden Multi-Body Interactions**Andrey Lokhov

1:55 **Using the D-Wave 2X to Explore the Formation of Global Terrorist Networks**John Ambrosiano

2:10 **Connecting D-Wave 2X to Bayesian Inference Image Analysis**John Perry

2:25 **Quantum interaction of a few particle system mediated by photons**Petr Anisimov

2:40 **Simulations of non-local spin interaction in atomic magnetometers using LANL's DWave 2X**Igor Savukov

2:55 **BREAK (with Refreshments)**

3:10 **Problem Reformulation and Matrix Sparsification**Hristo Djidjev

3:30 **Quantum Annealing Approaches to Graph Partitioning for Electronic Structure Problems**Sue Mniszewski

3:50 **Combinatorial Blind Source Separation using LANL's D-Wave 2X**Dan O'Malley

4:10 **A Rigorous Comparison of the D-Wave 2X to Established B-QP Solution Methods**Carleton Coffrin

4:30 **Solving Sparse Representation as for Object Classification Using the D-Wave 2X**Nga Nguyen

4:50 **DISCUSSION**Lead: John Sarrao (ADTSC), Bill Archer (ASC)

5:15 **ADJOURN**